

IN THE CLAIMS:

Please cancel Claims 7-11, 15, 16, 20 and 21 without prejudice to or disclaimer of the subject matter presented therein.

Please amend Claims 1, 3, 6, 12, 14, 17 and 19 as follows.

1. (Currently Amended) A method of tracking facial features in a video sequence, said method comprising the steps of:

- (a) receiving facial features for tracking in a first frame of said video sequence; (b) spatiotemporally segmenting said video sequence to provide a sequence of associated two-dimensional segments, a first two-dimensional segment in said sequence of associated two-dimensional segments including said facial features for tracking;
- (c) identifying candidate facial features in ~~at least~~ a second two-dimensional segment in a second frame of said video sequence, said second two-dimensional segment being one of said sequence of associated two-dimensional segments; and
- (d) verifying which of said candidate facial features correspond with said facial features for tracking

2. (Original) A method as claimed in claim 1 comprising the further step of:

- (e) recovering lost facial features by using known geometric relations between facial features.

3. (Currently Amended) A method as claimed in claim 1 wherein step (c) comprises the sub-steps of:

- (ci) forming a sub-image including said second two-dimensional segment in said sequence of associated two-dimensional segments;
- (cii) normalising the size of said sub-image; and
- (ciii) identifying candidate facial features in said normalised sub-image.

4. (Original) A method as claimed in 1 wherein step (d) measures the correspondence between said candidate facial features and said facial features for tracking.

5. (Original) A method as claimed in claim 4 wherein step (d) comprises determining whether said candidate facial features are within a region of said facial features for tracking in a previous frame.

6. (Currently Amended) A method as claimed in claim 5 wherein step (d) further comprises determining whether said candidate facial features within each of said regions that are similar in shape to said facial features for tracking in said previous frame.

7-11. (Canceled)

12. (Currently Amended) An apparatus for tracking facial features in a video sequence, said apparatus comprising:

means for receiving facial features for tracking in a first frame of said video sequence;  
means for spatiotemporally segmenting said video sequence to provide a sequence of associated two-dimensional segments, a first two-dimensional segment in said sequence of associated two-dimensional segments including said facial features for tracking;

means for identifying candidate facial features in ~~at least~~ a second two-dimensional segment in a second frame of said video sequence, said second two-dimensional segment being one of said sequence of associated two-dimensional segments; and

means for verifying which of said candidate facial features correspond with said facial features for tracking.

13. (Original) An apparatus as claimed in claim 12 further comprising: means for recovering lost facial features by using known geometric relations between facial features.

14. (Currently Amended) An apparatus as claimed in claim 12 wherein said means for identifying comprises:

means for forming a sub-image including said second two-dimensional segment in said sequence of associated two-dimensional segments;

means for normalising the size of said sub-image; and

means for identifying candidate facial features in said normalised sub-image.

15-16. (Canceled)

17. (Currently Amended) A program stored on a memory medium for tracking facial features in a video sequence, said program comprising:

code for receiving facial features for tracking in a first frame of said video sequence;

code for spatiotemporally segmenting said video sequence to provide a sequence of associated two-dimensional segments, a first two-dimensional segment in said sequence of associated two-dimensional segments including said facial features for tracking;

code for identifying candidate facial features in at least a second two-dimensional segment in a second frame of said video sequence, said second two-dimensional segment being one of in-said sequence sequences of associated two-dimensional segments; and

code for verifying which of said candidate facial features correspond with said facial features for tracking.

18. (Original) A program as claimed in claim 17 further comprising:

code for recovering lost facial features by using known geometric relations between facial features.

19. (Currently Amended) A program as claimed in claim 17 wherein said code for identifying comprises:

code for forming a sub-image including said second two-dimensional segment in said sequence of associated two-dimensional segments;

code for normalising the size of said sub-image; and

code for identifying candidate facial features in said normalised sub-image.

20-21. (Canceled)